IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A metropolitan area packet rings comprising:

a fiber optic loop carrying asynchronous data packets, wherein the asynchronous data packets flow in a single direction through the fiber optic loop;

a plurality of metropolitan packet switches coupled to the fiber optic loop, wherein a metropolitan packet switch is comprised of:

an I/O port coupled to the fiber optic loop which inserts packets of data onto the fiber optic loop and which pulls packets of data off the fiber optic loop;

a processor coupled to the I/O Port which separately regulates data packets, transmitted over the fiber optic loop, on a per-flow basis, wherein quality of service is maintained on said per-flow basis.

Claim 2 (Cancelled).

Claim 3 (Previously Presented): The metropolitan area packet ring of Claim 1, wherein the processor decreases a data rate of a flow upstream to a point of congestion in order to maintain quality of service.

Claim 4 (Original): The metropolitan area packet ring of Claim 1, wherein bandwidth that becomes available is allocated amongst a plurality of flows.

Claim 5 (Original): The metropolitan area packet ring of Claim 4, wherein the metropolitan packet switch allocates available bandwidth according to a pre-determined weighting scheme.

Claim 6 (Previously Presented): The metropolitan area packet ring of Claim 1 further comprising a ring management system coupled to one of the metropolitan packet switches which sets up the metropolitan packed switches in order to maintain pre-determined quality of service on a per-flow basis.

Claim 7 (Original): The metropolitan area packet ring of Claim 1, wherein the quality of service includes a variable bit rate with a minimum bandwidth.

Claim 8 (Original): The metropolitan area packet ring of Claim 1, wherein the quality of service includes a constant bit rate with a minimum delay.

Claim 9 (Original): The metropolitan area packet ring of Claim 1, wherein the metropolitan packet switch performs rate shaping.

Claim 10 (Original): The metropolitan area packet ring of Claim 1, wherein the data packets transmitted through the fiber loop comprise 10 gigabit Ethernet.

Claim 11 (Currently Amended): In a metropolitan area packet ring having a plurality of switching devices through which a plurality of devices are coupled to the metropolitan area packet ring, a method for managing packetized traffic flowing asynchronously in a single direction through the metropolitan area packet ring to maintain a particular quality of service for a subscriber, comprising the steps of:

assigning the particular quality of service to the subscriber;

controlling said asynchronous data packets, ~~being~~ transmitted over the metropolitan area packet ring, on a per-flow basis so as to provide the subscriber with a minimum bandwidth uni-directional QoS flow, regardless of the congestion on the metropolitan area packet ring.

Claim 12 (Cancelled).

Claim 13 (Previously Presented): The method of Claim 11 further including the steps of:

determining packetized data congestion corresponding to particular segments of the metropolitan area packet ring;

adjusting a data rate upstream to a point of congestion in order to maintain that the minimum bandwidth assigned to the subscriber is being met.

Claim 14 (Original): The method of Claim 11 further comprising the step of allocating bandwidth that becomes available to subscribers according to a pre-determined weighting scheme.

Claim 15 (Original): The method of Claim 11, wherein the packetized data flowing through the fiber optic loop is comprised of Ethernet packets.

Claim 16 (Original): The method of Claim 15, wherein the fiber optic loop is comprised of 10 Gbit Ethernet.

Claim 17 (Original): The method of Claim 11, wherein the quality of service corresponds to either a variable bit rate with a minimum bandwidth or a constant bit rate with a minimum delay.

Claim 18 (Currently Amended): A device for routing packetized data in a packet ring, comprising:

a first port configured to insert data packets onto the packet ring;

a second port, downstream from the first port, configured to take data packets off from the packet ring;

a processor coupled to the first port which regulates data packets flowing asynchronously through the packet ring on a per-flow basis[[;]], wherein

bandwidth which becomes available is re-allocated in accordance with a predetermined weighting scheme;

the asynchronous data packets flow in a single direction through the packet ring; and

the data rate of a uni-directional QoS flow is maintained on a per-flow basis.

Claim 19 (Cancelled).

Claim 20 (Previously Presented): The device of Claim 18, wherein the processor adjusts the data rates such that quality of service is maintained.

Claim 21 (Original): The device of Claim 18, wherein the processor controls a rate by which data packets belonging to upstream flows are allowed to be inserted onto the packet ring.

Claim 22 (Original): The device of Claim 18 further comprising a circuit which allocates available bandwidth on a per-flow basis.

Claim 23 (Original): The device of Claim 18, wherein the data rates of upstream flows are increased according to a pre-determined weighting scheme.

Claim 24 (Original): The device of Claim 18, wherein the packet ring is comprised of a fiber loop.

Claim 25 (Previously Presented): In a metropolitan area packet ring having a plurality of switching devices coupled to the packet ring, a method to manage packetized traffic flowing asynchronously in one direction through the packet ring, comprising the steps of:

assigning initial bandwidths corresponding to a plurality of subscribers;

determining packetized data congestion in the metropolitan area packet ring, wherein if bandwidth becomes available, newly available bandwidth is allocated to be used by the subscribers; and

the plurality of subscribers are provided with respective minimum bandwidth uni-directional QoS flows on a per-flow basis.

Claim 26 (Cancelled).

Claim 27 (Previously Presented): The method of Claim 25 further comprising the step of allocating the available bandwidth to flows according to a pre-determined weighting scheme.

Claim 28 (Previously Presented): The method of Claim 25 further comprising the step of controlling rates by which packetized data is allowed to be inserted onto the packet ring in order to provide quality of service for a set of the subscribers.

Claim 29 (Previously Presented): The method of Claim 28 further comprising the step of reducing a data rate of an upstream flow to maintain the quality of service for a subscriber.

Claim 30 (Previously Presented): The method of Claim 25, wherein the packet ring comprises a fiber optic loop and the packetized data is comprised of Ethernet packets.